

A proposal for preparation of the

Big Sur Coastal Trail Master Plan

Submitted to the

**California State
Coastal Conservancy**



Prepared by

**The Dangermond Group
&
Keystone Associates**



May 31, 2007



May 31, 2007

Trish Chapman
California State Coastal Conservancy
1330 Broadway, Suite 1300
Oakland, CA 94612

Dear Ms. Chapman,

We are pleased to submit this proposal for the preparation of a Big Sur Coastal Trail Master Plan along the spectacular Big Sur coastline. This planning effort presents many challenges, not the least of which are conducting a successful public outreach process, identifying technical challenges and potential solutions, and developing a plan that will be used to help make the trail a reality.

We are familiar with the Coastal Conservancy's core values, operational style, and long-term goals and will work closely with the Coastal Conservancy, other agencies, and public to ensure a refreshingly positive and productive planning process

Based on our knowledge of the project area and assessment of the project needs, we have suggested an approach that provides public meetings at two locations, Carmel and Big Sur. The public outreach effort would be led by Cathryn Wild, of Keystone Associates, a biologist and formerly a project manager with the Coastal Conservancy. To ensure a successful planning effort, Cathryn plans to relocate to the project area. Assisting her will be Dale Flowers, one of the top meeting facilitators in the state.

Also, to provide a more extensive public dialogue, we are suggesting a weblog website (blog) where community members can comment on the project, and dialogue with the project team among themselves. To make this approach successful we propose to work with the Steering Committee to design a format that will be consistent with the needs of the Conservancy and the project, and to review (and possibly edit) the entries daily. Pete Dangermond, former Monterey County Parks Director and State Parks Director, will provide input into both the public outreach and planning efforts.

Leading the technical team will be JoAnn Ross, who recently completed the Santa Ana River Trail Master Plan – Prado Basin. Assisting her with feasibility and alignment assessments, will be Roger Bell, a highly-respected trail builder and leader in his field. We propose to use existing data where possible. However, to ensure a technically feasible solution, field inventories of selected sites will be conducted. Sites selections will be based on review of existing materials and input from the Conservancy, the Steering Committee and Mary Wright. Mary Wright is knowledgeable about the project area, both from her experience as Supervising Ranger of the Monterey District and as a local resident who loves to hike. Michael Dangermond, our GIS specialist will help design the metadata and geodatabase. Michael helped plan and map the Monterey Bay Sanctuary Scenic Trail while working for the Association for Monterey Bay Area Governments.



Finally, we plan to develop a Final Plan that reflects a reasonable degree of public consensus and supports future planning and construction efforts. We would produce a useful working document that :

- Clearly communicates plans for the trail to a wide variety of interested parties,
- Supports future planning efforts,
- Serves as an authorized placeholder to influence future development and the alignment of infrastructure facilities,
- Provides a basis for grant applications,
- Supports legislative efforts to develop construction and maintenance funding, and
- Provides a clear action plan that would prioritize trail segments, identify key tasks and personnel, identify potential funding sources, and provide a schedule for completing identified tasks.

Contacts for the project include:

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As a certified small business, The Dangermond Team has a successful history of working with multiple agencies and the public. The majority of our work has been in the design of large open space/recreational projects, many of which involved planning trails through limited-space corridors with many competing interests. We believe that our team would provide the expertise the Conservancy is seeking, and can carry out a planning process that reflects well on the Conservancy and maintains the Conservancy's reputation for innovation and partnership building. We are committed to developing a plan that reflects the public's individual and collective interests, and that will provide direction for the future of this project.

We are looking forward to working with you on this exciting project.

Sincerely,

Pete Dangermond

Project Understanding & Approach





Project Understanding

The consultant, working with the Coastal Conservancy, agencies and the public, will develop a Master Plan for a continuous 75 mile-long segment of the Coastal Trail along the central California coast from the Carmel River in Monterey County to San Carpoforo Creek in San Luis Obispo County. The trail will be multi-use and multi-stranded, consisting of single and parallel trail tracks, loops and spurs, any of which may be temporary, long-term or seasonal, and may have identified limited uses. To allow visitors to experience the beauty of the coast, the trail will hug the coastline, being within sight, sound and/or smell of the ocean whenever possible. The trail alignment will be selected to minimize harm to sensitive resources and respect the needs of private land owners.

Because the Coastal Trail, including the Big Sur Trail, is very high profile, this planning effort will attract substantial attention at many levels. The consultant selected to complete the Master Plan will need to work closely with agency owners, regulatory agencies, local residents and businesses, and potential trail users.

Close coordination with California State Parks or the U.S. Forest Service is imperative as most of the trail will be constructed on land they own (or will purchase), and will be operated by these agencies. Also, trail planning within the state highway right-of-way will require the participation of Caltrans and, to minimize the impacts of the trail on sensitive habitat, will include coordination with the California Department of Fish and Game. Agency interests will be represented by staff participation on a Steering Committee which will oversee the planning process. In addition to Federal, State and local agency and Coastal Conservancy staff, the Steering Committed may include selected members of the public.

Visitors are attracted to the area because of the spectacular beauty of the coastline and the charming resort communities along State Highway 1. However, the remoteness and natural beauty of the central coast has attracted many residents who are concerned about the potential negative impacts of visitors to the area, including users of the Coastal Trail. Finally, local businesses serve visitors

to the area and have a vested interest in developing trail facilities that enhance their businesses. To be successful, this planning effort must provide a comfortable process through which these varied groups of people can work together to provide useful input to the trail planning process.

The erosive terrain along the central coast is some of the steepest terrain along the western coast of the continent and will present many technical alignment challenges. The trail will need to cross or bypass rivers, streams and boggy soils, cross existing roadways, work with natural drainages, resist erosion, be nearly invisible from the highway, respect sensitive natural resources, and serve the needs of a wide variety of users, including hikers, road and mountain bicyclists, equestrians, disabled users and possibly watercraft such as kayaks and canoes.

In addition to a great planning process, the project requires the completion of a final Master Plan document written in a clear and understandable manner. This document should serve (at a minimum) to:

- Relay to the public a viable plan for the Big Sur segment of the Coastal Trail;
- Provide a basis for more detailed trails planning to agencies such as State Parks, Forest Service and Counties and Cities;
- Be used to support funding proposals, including formal grant proposals, and legislative and departmental budget requests;
- Serve as a formally adopted trails plan in the public domain to help ensure that trail needs will be addressed in future infrastructure and facilities planning; and
- Identify logical next steps, key personnel and a projected schedule to implement components of the plan.



Project Approach

Our approach to this project began with a thorough review of the Request for Services and supporting documents. After reviewing the needs of this project we selected team members with proven expertise in working with multiple agencies and the public, park management, land acquisition, master planning, trail building, natural resource preservation, geospatial mapping and analysis, accessible design and report writing. Combined, we bring over 180 years of recreational planning, building and operations experience to this project. We believe that our team is well suited to complete the following planning process.

Public Outreach

Many community members along the central coast of California are likely to participate in the public outreach process. They have concerns regarding privacy, fire prevention, trash, graffiti, and illegal uses. Also, they are concerned about the maintenance of trails, both existing and future, and may be reluctant to support more trails without reassurances that maintenance will improve, particularly for Forest Service maintained trails.

Although public meetings will be our main public outreach focus, we suggest that a weblog website (blog) might add additional value to the planning process. We proposed the potential for using the internet to reach out to a wider audience and to allow a more detail-oriented interaction among the residents and between the planning team and the residents. Therefore, to augment the meetings we would like to develop a website that supports blogging. The planning team could post the most recent planning information and comments from the public meetings. The blog would provide an opportunity for local residents to dialog about their concerns and include details that the time constraints of a meeting would not permit. These comments would be used in evaluating proposed trail alignments and improvements. We would need to evaluate the potential for this site to be accessible to the majority of users, including the blind population. The project team would bear the responsibility to review the site at a minimum every other day to remove offensive content.

To accommodate the majority of local residents we propose that each of the meetings be held in two locations, one in the Big Sur area and the other further north near Carmel. Our experience is that we have been able to use public facilities for these meetings at very low or no cost.

Public meetings would consist of the following general format, consisting of part informational presentation, and part workshop style break out groups:

1. Section 1. Information Sharing -
Presentation to entire group of public attendees.
 - a. Welcome, introductions, distribute agenda as needed, review.
 - b. Background on the Coastal Trail to date and current status.
 - c. Provide overview of planning process to date and current status.
 - d. Review draft goals and objectives (first public meeting) / review draft alignments (second public meeting)/ review draft master plan (third public meeting).
 - e. All other information to be shared; e.g. other avenues to submit comments, follow progress online, etc.
2. Section 2. Kitchen table Work Sessions – these are break-out sessions of no more than 10 persons per table, in which participants will be asked to write responses to predetermined questions, and also to submit any free-form comments they may have. All comments will be recorded in writing. Comments will be ranked by participants into three categories; e.g. most important, somewhat important, less important. Depending on the meeting topic, participants may therefore by ranking their concerns about the trail impacts to their communities, ranking preferred alignments, the projects they would like to see completed first, or other topics.



Public Outreach (cont.)

3. Section 3. Reconvene Information Sharing Presentation to entire group.
 - a. The entire set of participants will share results of kitchen table sessions. Facilitators will review as necessary. Each group views the comments from the other groups, so that they view the breadth of comments and understand that all comments are captured and respected.
 - b. Facilitator reiterates next steps in planning process, how comments will be utilized and future opportunities for public involvement.

The Kitchen Table groups combined with the following Information Sharing period are a very flexible format that permits everyone to have their say, distills and prioritizes the information gathered, facilitates recording of the information, fosters understanding of the breadth of opinions found within the community, and decreases conflict between divergent points of view.

Public input comments will be posted online in their entirety, (excepting offensive or personally-directed comments which may be edited). A summary of the ranked comments will be placed online and into the appropriate sections of the draft and final Master Plan.

Finally, we would ask existing organizations such as State Parks, the Forest Service, the Pelican Network and the Ventana Wilderness Society to post information about public meetings on their websites and at their facilities.

Steering Committee/Agency Coordination

The Request for Services outlined a process that would involve Steering Committee selection by the Conservancy. The Steering Committee would be composed of staff from agencies with overlapping interests in the project (in particular CA State

Parks and U.S. Forest Service and local Counties and Cities). For this project we would also prefer to include a few key public members on the Steering Committee. These could be selected from suggestions submitted by the State Conservancy and members of the Steering Committee.

In our work plan we have proposed six Steering Committee meetings, to be held at the Conservancy Offices in Oakland, CA (as detailed in the Scope of Work below). These meetings would provide an opportunity for agencies to share their ideas and concerns, and for the Team to present materials prepared for the project and seek input into the next phases of the project. Additionally we have suggested that budget be set aside (Task 9.12) for individual or group calls to members of the Steering Committee.

To facilitate the distribution of meeting notices, agendas and exhibits we propose setting up a secure FTP site where documents could be posted and downloaded. A master email list would be developed to provide notification of postings to the site and for use as a backup for meeting notices and agendas.

The Steering Committee meetings are expected to be smaller, and less formal in structure than the public meetings and structured as group work sessions for collaborative decision-making and development or refinement of products.

Steering committee meetings will likely have individual customized formats as we move through the planning process. Each meeting can be tailored to the specific needs of the current process step. Again, we will consult with the Steering Committee to establish goals, action items and informational needs for each meeting as the planning process evolves.

Items common to all Steering Committee meetings

- All meetings would be preceded by appropriate advance meeting preparation, which would typically include: development of an agenda, meeting goals, decision points, roles for participants in collaboration with the Steering Committee; advance distribution of background or supporting materials so that participants



Steering Committee/Agency Coordination (cont.)

will have reviewed these and be prepared to discuss them or make decisions in the meeting; other tasks as necessary.

- An explanation to any members of public in attendance of the nature of the meeting (i.e., that comments are welcomed at other meetings arranged specifically for that purpose) and access to information online regarding the planning process.
- All meetings would be followed by meeting notes distributed by email, a list of decisions made, and action items to be undertaken.

In addition to the working content of the meeting (review of draft goals and objectives; identification of data) the project initiation meeting would include some unique steps intended to establish excellent working relationships throughout the remainder of the process. This would likely include:

- Welcome and introductions
- Discussion of facilitation procedures to be used throughout the series of meetings; e.g. staying on topic, staying on time, procedures for deviating from topic or time, group decision making procedures, etc.
- Calendaring of subsequent meetings – if feasible, we would like to do this early in the process to minimize scheduling conflicts.

The remaining meetings, as described in the Request for Services, include those focused on review, evaluation and decision-making regarding design criteria, opportunities and constraints analysis, and draft and final alignments. Some of these meetings may benefit from field trips to view specific alignments or design issues. As these needs are identified, options to provide additional information (e.g. field trips, photographs, maps) can be discussed with the Steering Committee. To hold within the proposed budget, we suggest that Steering Committee members might accompany us on the proposed site inventories.

Note that we have proposed an additional meeting with the Steering Committee to be held following

completion of the database update. It is possible that this meeting will not be required; however, it is likely that compilation of the database will reveal some informational gaps. The purpose of this proposed meeting therefore will be to inform the SC of these gaps, discuss the implications, and assess what measures, if any, the SC will want to take to fill these gaps.

Notes from the Steering Committee meetings will be posted online in their entirety.

A summary of the decision making milestones in the planning process will be placed in appropriate sections of the draft and final Master Plan.

Mapping/Report Preparation

We propose using the existing State Highway 1 as the linear reference and creating a series of event tables that can be linked to the Highway. This system will allow us to evaluate multiple trail alignment possibilities and selectively map preferred alternatives along with the features that they link. Because the existing files have been created by different agencies, they are likely to use inconsistent abbreviations and database structure. After compilation of the existing data, our Team would work with the Coastal Conservancy staff to evaluate the existing data and design a consistent file structure and abbreviation list use in the mapping for this project. Descriptive and Administrative metadata standards, preferred map projection and mapping scales best suited to display information will also be identified and utilized throughout the project. Finally, working with the Conservancy staff, we will develop map symbology that will effectively and handsomely display the information in a manner that will be understandable and discernible to a variety of users, including those affected by color blindness.

A series of maps would evolve from the initial dataset, using the database function of the geodatabase to identify feature characteristics that can be quickly queried to display various levels of data, including opportunities and constraints, alternatives and preferred alternatives. We anticipate that data level text will be stored as an annotation file within each map file so that it would be scalable along with the map.



Mapping/Report Preparation (cont.)

The information compiled would be formatted into a series of draft and a final report using InDesignCS2 for text pages. The maps, text and tables would be converted to a web-friendly PDF format and compiled into one document. Where feasible documents would be standard letter size, however, more detailed maps might be a more readable tabloid size. Every effort will be made to use non-technical language that can be easily understood.

Technical Evaluations

The central coastline is one of the steepest on the west coast of the continent. In addition to the steep terrain there are many features that make trail building a challenge along the coast. In many places the soils are unstable and subject to slippage, seasonally flooding river and creeks and smaller drainages bisect the project area, sensitive habitat and wildlife crossings and nesting areas abound, ocean tides reduce the width of beaches, State Highway 101 parallels the edge of the coast, and private ownerships eliminate potential alignment possibilities.

The Dangermond Team will utilize the existing information gathered from local agencies, reliable agency websites, the Big Sur Coast highway management Plan GIS/Database, local knowledge, reports and hard copy maps to evaluate existing conditions to perform an initial evaluation. We would evaluate both manmade and natural features. Manmade features would include existing trails and roadways, bridges, destinations, historic and archeological features, parks, parking, trailheads, bus stops, coastal and bluff access, signage, and easement and ownership status. Natural features would include sensitive habitat, history of slippage and soils, contours, culverts and drainages, paleontological features, wildlife corridors and view, smell and sound impacts. Safety, fire prevention and emergency rescue impacts will be explored with fire and policing personnel.

Past experience planning trails and parks has shown us that existing data generally lacks key information necessary to complete the planning process. While this project may be the exception,

we have proposed hours dedicated to field investigations. Roger Bell, who has built trails for 30 years, will work with the rest of the team to evaluate the existing information and identify areas that are suited to the trail, provide important links to existing features, are located on land that is in public ownership (or feasible to acquire either in fee or easement), and appear to present technical challenges that would benefit from a field investigation. Based on her experience as Superintendent of the Monterey District State Parks unit and as a local trail user, Mary Wright would serve as a resource to help identify areas to investigate and we would solicit suggestions from Steering Committee members.

Project Team Overview

Pete Dangermond's and Mary Wright's long service with CA State Parks and County Parks agencies has provided them with a working knowledge of these agencies procedures and regulations. More recently Mr. Dangermond has served as Principal for Dangermond Group and Executive Director of the Riverside Land Conservancy, in which roles he is well known for his unique, creative solutions to multiple-agency, public projects. Pete has a lifelong love of the outdoors, which he has experienced as a hiker and a fisherman.

After her years of service with CA State Parks, Mary Wright retired to the Big Sur area. She continues to serve the public good by sitting on non-profit boards that help to preserve and protect environmental and recreational resources. She is an avid hiker.

Cathryn Wild, having served as program manager for the State Coastal Conservancy, will serve as project coordinator for the Conservancy. She also brings extensive experience, working with regulatory agencies worldwide, as a conservation biologist. She will be the primary point of contact between the Coastal Conservancy and the rest of the project team (Task 10). Ms. Wild will organize the overall public outreach and input to the planning process. She will coordinate the meetings with the Steering Committee and public; facilitation of these meetings will be divided



Project Team (cont.)

between Ms. Wild and Mr. Flowers (Task 1 and portions of Task 9). Ms. Wild will develop the elements within planning process and products that concern potential impacts of the trail to biological resources. This will consist of parts of the existing conditions report, design criteria, opportunities and constraints analysis, proposed alignment selection, draft master plan, action plan and final plan (parts of Tasks 2, 3, 4, 5, 6, 7 and 8). Ms. Wild will evaluate biological impacts of the trail. Finally, Ms. Wild will develop many of the mapping products for the plan, working in close coordination with other team members. Ms. Wild

JoAnn Ross will serve as technical lead. She has successfully managed trails and open space projects in sensitive areas which required extensive coordination with multiple agencies, including the U.S. Army Corps of Engineers, Caltrans, U.S. Fish and U.S. Wildlife, Service CA Fish and Game and Counties and Cities. Ms. Ross will work with Roger Bell and Mary Wright to evaluate the suitability of sites for potential trail alignments. Ms. Ross has trail planning experience at many levels, including plan preparation, conceptual and master planning preparation, maintenance and funding evaluation, building trails with volunteers, Universal Trails Assessment Process training and is enrolled in a rock design and placement workshop in late August. She brings GIS and ACAD capabilities to this project, is skilled in the graphics arts and conversant with the Adobe suite software.

Roger Bell has designed, aligned and built hundreds of trails for agencies such as the U.S. Forest Service, Counties and Cities. These trails have been located in a variety of terrains, including shorefront properties. Mr. Bell is quickly able to identify sustainable trail alignments. He is on the Board of both American Trails and The Professional Trail Builders Association and is a speaker at trails conferences nationwide.

Dale Flowers is a skilled public meeting facilitator with extensive experience working for the State of California as a meeting facilitator - both public and

internally. He has also assisted with training their trainers in managing projects and people skills. He has worked with The Dangermond Team on many recreation and open space oriented projects. He has repeatedly demonstrated his ability to keep a meeting on track despite widely disparate viewpoints expressed by participants.

Michael Dangermond will provide GIS leadership. While with the Monterey Bay Area Council of Governments (AMBAG) he helped map the Monterey Bay Sanctuary Scenic Trail. At the Dangermond Group he has assisted with mapping of several trails planning projects, including two reaches of the Santa Ana River Trail

Brian Collett, a Principal at the Dangermond Group, grew up hiking the coastal trails in Marin County. As an experienced landscape architect and planner, he will lend his technical and experiential knowledge of trails and construction. Also, he will provide input into the public planning process.

Angela Avery's experience with the Save-The-Redwoods League provided her with extensive experience in ownership identification, acquisition and easement issues. She now brings those skills to Riverside Land Conservancy projects supported by The Dangermond Group. While at the Save the Redwoods League she engaged in trail building workshops.

**California State Coastal
Conservancy**
Trish Chapman, Project Manager

Steering Committee
State Coastal Conservancy
Agency Staff
Public

**The Dangermond Group
(TDG)**

**Pete Dangermond,
Principal**
Public Process
Steering Committee Input
Mapping and Planning

JoAnn Ross
Technical/Design - Lead
Analysis/Planning/Design
Public Process
Steering Committee Input
Map Setup Design
Report Preparation

Brian Collett
Public Process Guidance
Technical Design Support

Michael Dangermond
GIS Coordinator
Map Setup and Design

Angela Avery
Mapping
Report Preparation
Property Ownership Evaluation

Mary Wright
Public Process Support
Steering Committee Input
Design Input

Roger Bell
Technical Evaluation
Analysis/Planning/Design

Dale Flowers
Public Meeting Planning and
Facilitation

Keystone Associates

**Cathryn Wild,
Project Coordinator**
Public Meeting Planning and Coordination
Property Ownership Evaluation
Biological Assessments
Map Design and Mapping
Report Preparation Support



Work Plan & Project Schedule

Big Sur Coastal Trail Master Plan Work Plan

Task		Scope		TDG												Keystone Associates		Keystone Associates		Totals by Task
				Princ.		Proj. Coord./GIS		Associate		Roger Bell		Mary Wright		Dale Flowers		Princ./Proj. Mgr.		Mapping		
Task 1 - Project Initiation and Development of Goals and Objectives																				
I. 10	Coordinate and Facilitate Project Initiation Meeting with Steering Committee	10	\$ 1,950	10	\$ 1,250	0	\$ -	0	\$ -	10	\$ 1,200	5	\$ 387	18	\$ 2,070	0	\$ -	\$ 6,857		
I. 11	Coordinate and Facilitate Project Initiation Meetings with Public	8	\$ 1,560	16	\$ 2,000	0	\$ -	0	\$ -	0	\$ -	12	\$ 1,032	10	\$ 1,150	0	\$ -	\$ 5,742		
I. 12	Update Existing Draft Project Goals and Objectives	2	\$ 390	8	\$ 1,000		\$ -	0	\$ -	4	\$ 480		\$ -	10	\$ 1,150	0	\$ -	\$ 3,020		
I. 13	SCC to Finalize Project Goals and Objectives	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	\$ -		
Total Task 1 Hours		20		34		0		0		14		17		38		0		123		
Total Task 1 Total			\$ 3,900		\$ 4,250		\$ -		\$ -		\$ 1,680		\$ 1,419		\$ 4,370		\$ -	\$ 15,619		
Task 1 Deliverables		1.10 Steering Committee contact list, email and phone invitations to Steering Committee, agenda for Steering Committee meeting, 1.11 Public meeting announcement contact list, arrangements for public meeting space, public meeting announcements, website meeting posting, agenda/plan for public meeting, power point presentation for public meeting, matrix of public comments obtained at the meeting 1.12 Update draft project goals and objectives 1.13 Final project goals and objectives																		
Task 2 - Inventory and Assessment and Basemap and Database Development																				
2. 10	Inventory and Assess Existing Digital Files	0	\$ -	12	\$ 1,500	0	\$ -	0	\$ -	0	\$ -	0	\$ -	10	\$ 1,150	10	\$ 950	\$ 3,600		
2. 11	Identify Gaps in Existing Dataset and Identify Sources of Additional Data	0	\$ -	8	\$ 1,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -	10	\$ 1,150	10	\$ 950	\$ 3,100		
2. 12	Develop Standards and Guidelines for Geodatabase Development and Printed Exhibits	0	\$ -	24	\$ 3,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -	10	\$ 1,150	0	\$ -	\$ 4,150		
2. 13	Compile a Geodatabase of the Project Area	0	\$ -	9	\$ 1,125	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	30	\$ 2,850	\$ 3,975		
Total Task 2 Hours		0		53		0		0		0		0		30		50		133		
Total Task 2 Total			\$ -		\$ 6,625		\$ -		\$ -		\$ -		\$ -		\$ 3,450		\$ 4,750	\$ 14,825		
Task 2 Deliverables		2.10 Matrix of existing digital files 2.11 Appended Matrix of existing digital files identifying gaps 2.12 Geodatabase metadata, standards and guidelines, formats for printed exhibits 2.13 Geodatabase of project area																		

Coastal Trail Master Plan - Work Plan

Task		Scope		TDG										Keystone Associates		Keystone Associates		Totals by Task
				Princ.		Proj. Coord./GIS		Associate		Roger Bell		Mary Wright		Dale Flowers		Princ./Proj. Mgr.		
Task 3 Existing Documents Review, Existing Conditions Report and Design Criteria Development																		
3. 10	Review of Existing Documents	0	\$ -	16	\$ 2,000	6	\$ 540	6	\$ 660	6	\$ 720	0	\$ -	10	\$ 1,150	0	\$ -	\$ 5,070
3. 11	Develop Draft Design Criteria	1	\$ 195	10	\$ 1,250	0	\$ -	4	\$ 440	4	\$ 480	0	\$ -	6	\$ 690	0	\$ -	\$ 3,055
3. 12	Circulate Draft Design Criteria to Steering Committee/Interested Parties and Coordinate and Facilitate Meeting with Steering Committee	0	\$ -	7	\$ 875	0	\$ -	0	\$ -	10	\$ 1,200	0	\$ -	18	\$ 2,070	0	\$ -	\$ 4,145
3. 13	Field Inventory of Selected Sites	0	\$ -	28	\$ 3,500	0	\$ -	28	\$ 3,080	16	\$ 1,920	0	\$ -	28	\$ 3,220	0	\$ -	\$ 11,720
3. 14	Coordinate with Major Agency, County and City Maintenance Departments	0	\$ -	12	\$ 1,500	8	\$ 720	0	\$ -	0	\$ -	0	\$ -	4	\$ 460	0	\$ -	\$ 2,680
3. 15	Coordinate with Fire and Police Departments	0	\$ -	12	\$ 1,500	0	\$ -	0	\$ -	0	\$ -	0	\$ -	4	\$ 460	0	\$ -	\$ 1,960
3. 16	Prepare Existing Conditions Report	0	\$ -	27	\$ 3,375	0	\$ -	0	\$ -	6	\$ 720	0	\$ -	14	\$ 1,610	8	\$ 760	\$ 6,465
3. 17	Draft Design Criteria Review and Comments by Steering Committee and Interested Parties	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	4	\$ 460	0	\$ -	\$ 460
3. 18	Coordinate and Facilitate Meetings with Public	0	\$ -	12	\$ 1,500	0	\$ -	0	\$ -	0	\$ -	17	\$ 1,462	10	\$ 1,150	0	\$ -	\$ 4,112
3. 19	Incorporate Comments into Draft Design Criteria	0	\$ -	4	\$ 500	0	\$ -	0	\$ -	2	\$ 240	0	\$ -	8	\$ 920	0	\$ -	\$ 1,660
Total Task 3 Hours		1		128		14		38		44		17		106		8		356
Total Task 3 Total			\$ 195		\$ 16,000		\$ 1,260		\$ 4,180		\$ 5,280		\$ 1,462		\$ 12,190		\$ 760	\$ 41,327
Task 3 Deliverables		3.10 Highlighted text and notes of relevant information from existing documents 3.11 Draft design criteria 3.12 Email /phone meeting invitations to steering committee, meeting materials posted to secure website, meeting agenda, meeting handouts 3.13 Field Inventories with photography and GPS as needed 3.14 Phone calls/meetings with maintenance departments, review of existing standards, matrix overview of existing maintenance standards where relevant 3.15 Email/phone meeting with operations, fire and police departments, review of existing standards, matrix overview of existing relevant regulations and management standards 3.16 Existing Conditions Report 3.1 Steering Committee and interested parties comments on draft design criteria 3.18 Arrangements for public meeting space, public meeting announcements, website meeting posting, agenda/plan for public meeting, power point presentation for public meeting, matrix of public comments obtained at the meeting 3.19 Final design criteria																

Big Sur Coastal Trail Master Plan Work Plan

Task		Scope		TDG										Keystone Associates		Keystone Associates		Totals by Task
				Princ.		Proj. Coord./GIS		Associate		Roger Bell		Mary Wright		Dale Flowers		Princ./Proj. Mgr.		
Task 4 - Opportunities and Constraints Analysis and Mapping																		
4. 10	Anaylsis of Opportunities and Constraints	2	\$ 390	28	\$ 3,500	8	\$ 720	8	\$ 880	6	\$ 720	0	\$ -	24	\$ 2,760	0	\$ -	\$ 8,970
4. 11	Mapping of Opportunities and Constraints - Append Map Database with Supplemental Information from Opportunities and Constraints Anaylsis	0	\$ -	8	\$ 1,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	40	\$ 3,800	\$ 4,800
4. 12	Circulate Draft Opportunities and Constraints Analysis and Map to Steering Committee and Interested Parties and Coordinate and Facilitate Meeting with Steering Committee	0	\$ -	7	\$ 875	0	\$ -	0	\$ -	10	\$ 1,200	0	\$ -	10	\$ 1,150	0	\$ -	\$ 3,225
4. 13	Incorporate Steering Committee Comments into Opportunities and Constraints Geodatabase.	0	\$ -	0	\$ -	4	\$ 360	0	\$ -	2	\$ 240	0	\$ -	0	\$ -	10	\$ 950	\$ 1,550
Total Task 4 Hours		2		43		12		8		18		0	\$ -	34		50		167
Total Task 4 Total			\$ 390		\$ 5,375		\$ 1,080		\$ 880		\$ 2,160		\$ -		\$ 3,910		\$ 4,750	\$ 18,545
Task 4 Deliverables		4.10 Opportunities and constraints matrix referenced to geodatabase 4.11 Opportunities and constraints geodatabase 4.12 Email /phone meeting invitations to Steering Committee, meeting agenda, meeting handouts, post meeting summary on secure website 4.13 Final opportunities and constraints geodatabase																
Task 5 - Define and Map Proposed Trail Alignments																		
5. 10	Define and Rate Potential Trail Alignments	2	\$ 390	14	\$ 1,750	8	\$ 720	4	\$ 440	4	\$ 480	0	\$ -	10	\$ 1,150	0	\$ -	\$ 4,930
5. 11	Create Draft Map of Potential Trail Alignments	0	\$ -	8	\$ 1,000	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	20	\$ 1,900	\$ 1,000
5. 12	Circulate Draft Proposed Trail Alignments to Steering Committee and Interested Parties and Coordinate and Facilitate Meeting with Steering Committee	0	\$ -	7	\$ 875	0	\$ -	0	\$ -	0	\$ -	0	\$ -	10	\$ 1,150	0	\$ -	\$ 2,025
5. 13	Work with SCC Staff to Coordinate and Facilitate Public Meeting for Review of Proposed Trail Alignments Map and Database	0	\$ -	12	\$ 1,500	0	\$ -	0	\$ -	0	\$ -	17	\$ 1,462	12	\$ 1,380	0	\$ -	\$ 4,342
5. 14	Field Inventory of Selected Sites	0	\$ -	16	\$ 2,000	0	\$ -	0	\$ -	6	\$ 720	0	\$ -	12	\$ 1,380	0	\$ -	\$ 4,100
5. 15	Incorporate Steering Committee Comments into Final Proposed Trail Alignments Map and Database	0	\$ -	2	\$ 250	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	10	\$ 950	\$ 250
Total Task 5 Hours		2		59		8		4		10		17		44		30		174
Total Task 5 Total			\$ 390		\$ 7,375		\$ 720		\$ 440		\$ 1,200		\$ 1,462		\$ 5,060		\$ 2,850	\$ 19,497
Task 5 Deliverables		5.10 Appended opportunities and constraints geodatabase with ratings of potential trail alignments and identification of most sustainable/feasible alignments 5.11 Draft potential trail alignments geodatabase 5.12 Draft proposed trail alignments posted to secure website, meeting agenda and handouts, and email/phone meeting announcement to Steering Committee 5.13 Appended publiccontact list, arrangements for public meeting space, agenda/plan for public meeting, public meeting announcements, announcement posted to website meeting announcement, power point presentation for public meeting, matrix of public comments, 5.14 Field Inventories with photography and GPS as needed 5.15 Final proposed trail alignments geodatabase																

Big Sur Coastal Trail Master Plan - Work Plan

		TDG												Keystone Associates		Keystone Associates		Totals by Task
Task	Scope	Princ.		Proj. Coord./GIS		Associate		Roger Bell		Mary Wright		Dale Flowers		Princ./Proj. Mgr.		Mapping		
Task 6 - Prepare Preliminary BSCT Master Plan																		
6. 10	Prepare Preliminary BSCT Master Plan	2	\$ 390	40	\$ 5,000	12	\$ 1,080	4	\$ 440	6	\$ 720	0	\$ -	20	\$ 2,300	0	\$ -	\$ 9,930
6. 11	Circulate Preliminary BSCT Master Plan to Steering Committee/Interested Parties and Coordinate and Facilitate Review Meeting with Steering Committee	0	\$ -	4	\$ 500	0	\$ -	0	\$ -	3	\$ 360	0	\$ -	20	\$ 2,300	0	\$ -	\$ 3,160
6. 12	Incorporate Steering Committee Comments into BSCT Master Plan	0	\$ -	2	\$ 250	0	\$ -	0	\$ -	0	\$ -	0	\$ -	10	\$ 1,150	0	\$ -	\$ 1,400
	Total Task 6 Hours	2		46		12		4		9		0		50		0		123
	Total Task 6 Total		\$ 390		\$ 5,750		\$ 1,080		\$ 440		\$ 1,080		\$ -		\$ 5,750		\$ -	\$ 14,490
	Task 6 Deliverables	6.10 Draft preliminary BSCT Master Plan 6.11 Post draft proposed trail alignments to secure website, prepare meeting agenda and handouts, and email/phone meeting announcement to Steering Committee, meeting notes 6.12 Preliminary BSCT Master Plan																
Task 7 - Prepare Action Plan																		
7. 10	Develop Draft Action Plan	2	\$ 390	28	\$ 3,500	0	\$ -	2	\$ 220	4	\$ 480	0	\$ -	20	\$ 2,300	0	\$ -	\$ 6,890
7. 11	Circulate Draft Action Plan to Steering Committee and Interested Parties for Review and Comments	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	20	\$ 2,300	0	\$ -	\$ 2,300
7. 12	Incorporate Steering Committee Comments into Action Plan	0	\$ -	2	\$ 250	0	\$ -	0	\$ -	0	\$ -	0	\$ -	10	\$ 1,150	0	\$ -	\$ 1,400
	Total Task 7 Hours	2		30		0	\$ -	2		4		0	\$ -	50		0		88
	Total Task 7 Total		\$ 390		\$ 3,750		\$ -		\$ 220		\$ 480		\$ -		\$ 5,750		\$ -	\$ 10,590
	Task 7 Deliverables	7.10 Draft action plan 7.11 Action plan posted to website and copies sent to Steering Committee 7.12 Final action plan																
Task 8 - Prepare Final Master Plan																		
8. 10	Compile Information Developed in Tasks 1-7 into a Draft Final Master Plan	2	\$ 390	24	\$ 3,000	8	\$ 720	0	\$ -	3	\$ 360	0	\$ -	0	\$ -	0	\$ -	\$ 4,470
8. 11	Circulate Draft BSCT Master Plan to Steering Committee and Interested Parties and Coordinate and Facilitate Review Meeting with Steering Committee	0	\$ -	7	\$ 875	0	\$ -	0	\$ -	3	\$ 360	0	\$ -	20	\$ 2,300	0	\$ -	\$ 3,535
8. 12	Work with SCC Staff to Coordinate and Facilitate Public Meetings for Presentation of Draft BSCT Master Plan	10	\$ 1,950	12	\$ 1,500	0	\$ -	0	\$ -	0	\$ -	17	\$ 1,462	24	\$ 2,760	0	\$ -	\$ 7,672
8. 13	Incorporate Steering Committee and Public Comments into Final Master Plan	0	\$ -	2	\$ 250	0	\$ -	0	\$ -	0	\$ -	0	\$ -	15	\$ 1,725	0	\$ -	\$ 1,975
8. 13	Prepare 5 Color Printed Copies of the Final Master Plan, 1 PDF Version and Create CD of Digital Files Compiled and Created for this Project	0	\$ -	2	\$ 250	6	\$ 540	0	\$ -	0	\$ -	0	\$ -	0	\$ -	0	\$ -	\$ 790
	Total Task 8 Hours	12		47		14		0		6		17		59		0		155
	Total Task 8 Total		\$ 2,340		\$ 5,875		\$ 1,260		\$ -		\$ 720		\$ 1,462		\$ 6,785		\$ -	\$ 18,442
	Task 8 Deliverables	8.10 Draft final master plan 8.11 Post draft final master plan to secure website, prepare meeting agenda and handouts, and email/phone meeting announcement to Steering Committee, meeting notes 8.12 Final master plan 8.13 Five color printed copies and one digital PDF version of the final master plan																

Big Sur Coastal Trail Master Plan - Work Plan																			
Task Scope		TDG												Keystone Associates		Keystone Associates		Totals by Task	
		Princ.		Proj. Coord./GIS		Associate		Roger Bell		Mary Wright		Dale Flowers		Princ./Proj. Mgr.		Mapping			
Task 9 - Project Management																			
9. 10	Finalize Contract with Subconsultant	0	\$ -	6	\$ 750	0	\$ -	0	\$ -	0	\$ -	0	\$ -	4	\$ 460	0	\$ -	\$	1,210
9. 11	Establishment and Maintenance of Secure Project Web Page for Communication among the Project Team and to Elicit Public Comment	0	\$ -	4	\$ 500	0	\$ -	0	\$ -	0	\$ -	5	\$ 430	48	\$ 5,520	0	\$ -	\$	6,450
9. 12	Conference Calls with SCC Staff and Steering Committee Members as Needed for Project Coordination	6	\$ 1,170	18	\$ 2,250	2	\$ 180	0	\$ -	0	\$ -	0	\$ -	30	\$ 3,450	0	\$ -	\$	7,050
9. 13	Preparation of Monthly Progress Reports	0	\$ -	12	\$ 1,500	0	\$ -	0	\$ -	0	\$ -	0	\$ -	48	\$ 5,520	0	\$ -	\$	7,020
Total Task 9 Hours		6		40		2		0		0		5		130		0			183
Total Task 9 Total			\$ 1,170		\$ 5,000		\$ 180		\$ -		\$ -		\$ 430		\$ 14,950		\$ -	\$	21,730
Task 9 Deliverables		9.10 Subconsultant contract(s) 9.11 Secure website for posting of project information/materials, meeting announcements, public information and receiving public input 9.12 Conference call arrangements, posting or relevant documents to website and conference call announcements 9.13 Monthly progress reports																	
		47		480		62		56		105		73		541		138			1502
			\$ 9,165		\$ 60,000		\$ 5,580		\$ 6,160		\$ 12,600		\$ 6,235		\$ 62,215		\$ 13,110		
														Total			\$	175,065	
Suggested Additional Task																			
5. 12A	Prepare Draft Maintenance and Operations Overview	0	\$ -	14	\$ 1,750	0	\$ -	4	\$ 440	4	\$ 480	0	\$ -	0	\$ -	0	\$ -	\$	2,670
Task 9 Deliverables		5.12A Draft maintenance and operations overview																	

Hourly Billing Rates

TDG Principal	\$190
TDG Project Coordinator/GIS	\$125
TDG Associate	\$ 90
Dale Flowers	\$ 86
Roger Bell	\$110
Mary Wright	\$120
Keystone-Assoc. Principal	\$110
Keystone-Assoc. Mapping	\$ 90

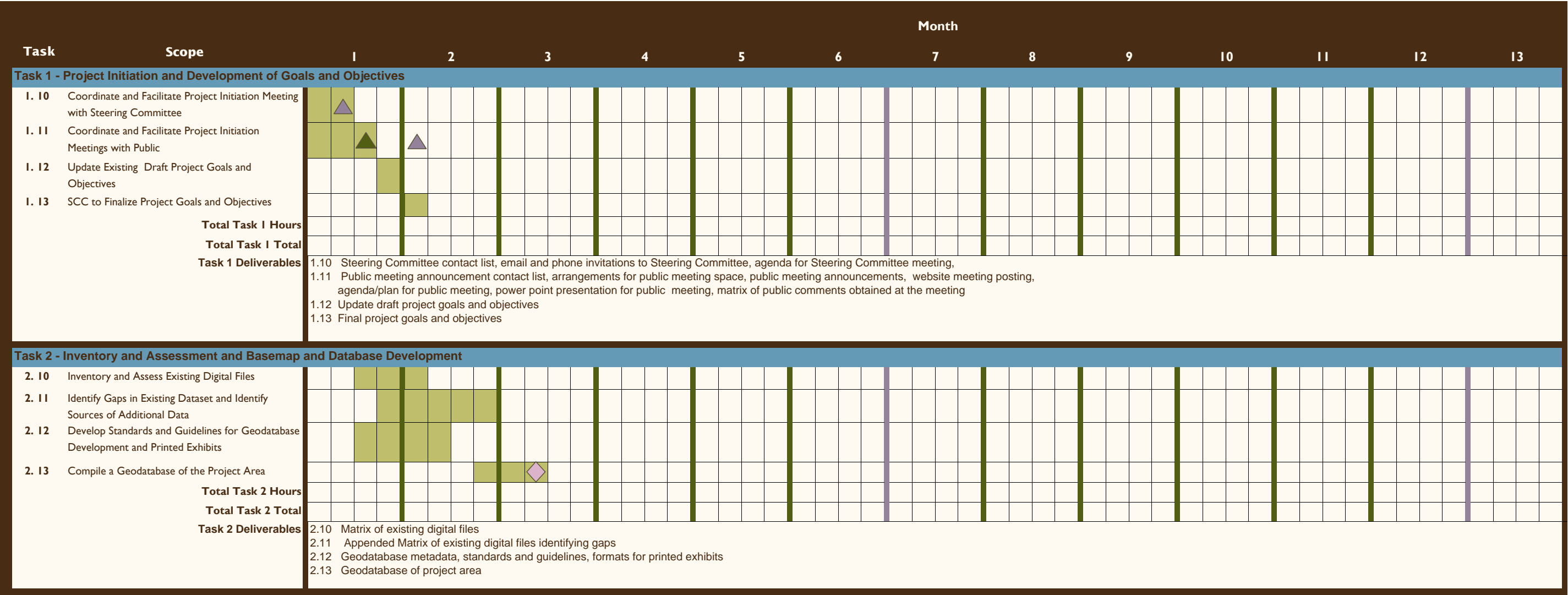
Big Sur Coastal Trail Master Plan - Project Schedule

Steering Committee Meeting

Public Meeting

Field Inventory

Mapping/Report Due



Project Schedule

Month

Task

Scope

1

2

3

4

5

6

7

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9

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11

12

13

Task 3 Existing Documents Review, Existing Conditions Report and Design Criteria Development

3.10 Review of Existing Documents

3.11 Develop Draft Design Criteria

3. 12 Circulate Draft Design Criteria to Steering Committee/Interested Parties and Coordinate and Facilitate Meeting with Steering Committee

3.13 Field Inventory of Selected Sites

3. 14 Coordinate with Major Agency, County and City Maintenance Departments

3.15 Coordinate with Fire and Police Departments

3.16 Prepare Existing Conditions Report

3.17 Draft Design Criteria Review and Comments by Steering Committee and Interested Parties

3.18 Coordinate and Facilitate Meetings with Public

3.19 Incorporate Comments into Draft Design Criteria

Total Task 3 Hours**Total Task 3 Total**

Task 3 Deliverables

3.10 Highlighted text and notes of relevant information from existing documents

3.11 Draft design criteria

3.12 Email /phone meeting invitations to steering committee, meeting materials posted to secure website, meeting agenda, meeting handouts

3.13 Field Inventories with photography and GPS as needed

3.14 Phone calls/meetings with maintenance departments, review of existing standards, matrix overview of existing maintenance standards where relevant

3.15 Email/phone meeting with operations, fire and police departments, review of existing standards, matrix overview of existing relevant regulations and management standards

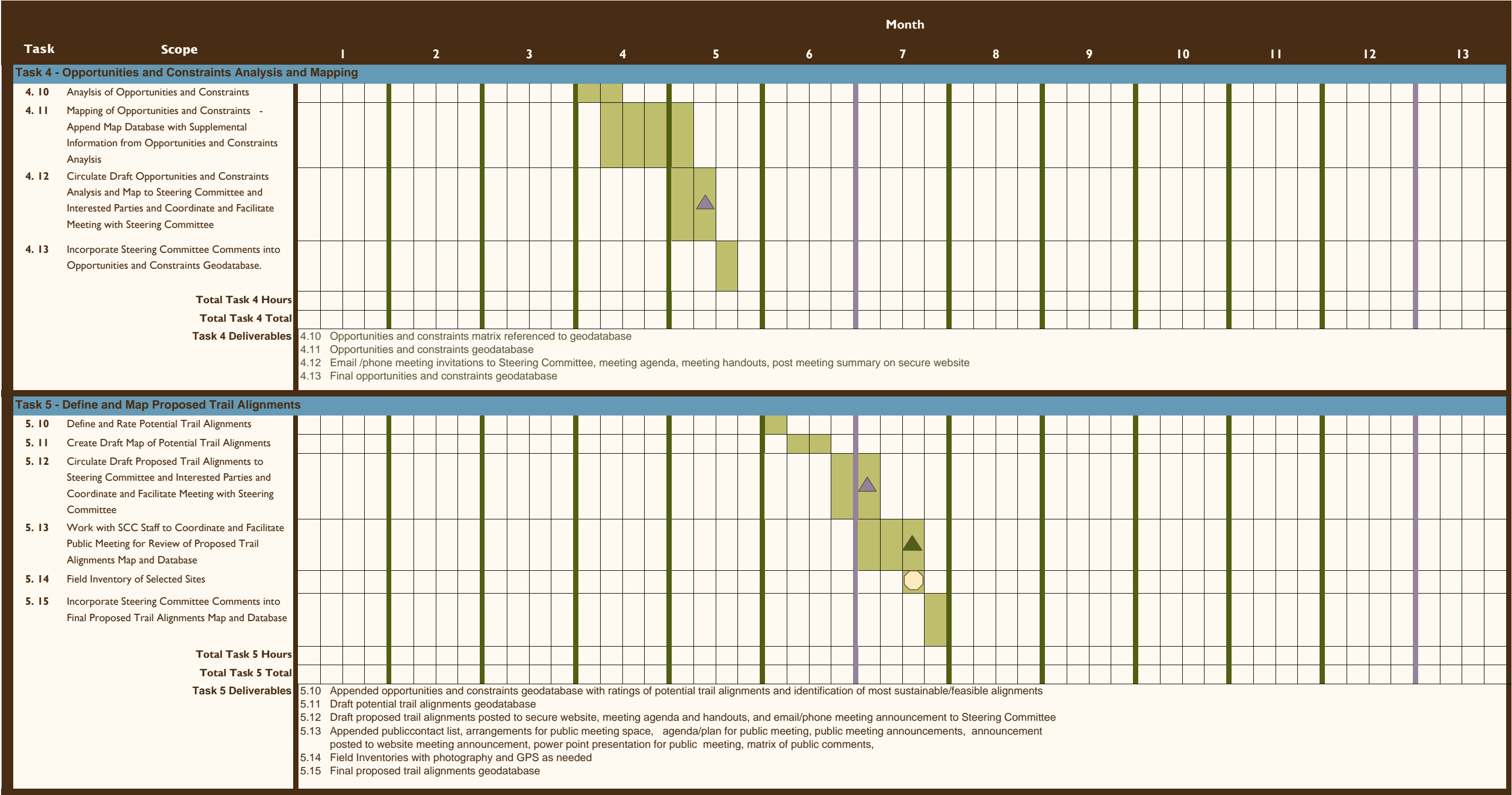
3.16 Steering Committee and interested parties comments on draft design criteria

3.17 Arrangements for public meeting space, public meeting announcements, website meeting posting, agenda/plan for public meeting, power point presentation for public meeting, matrix of public comments obtained at the meeting

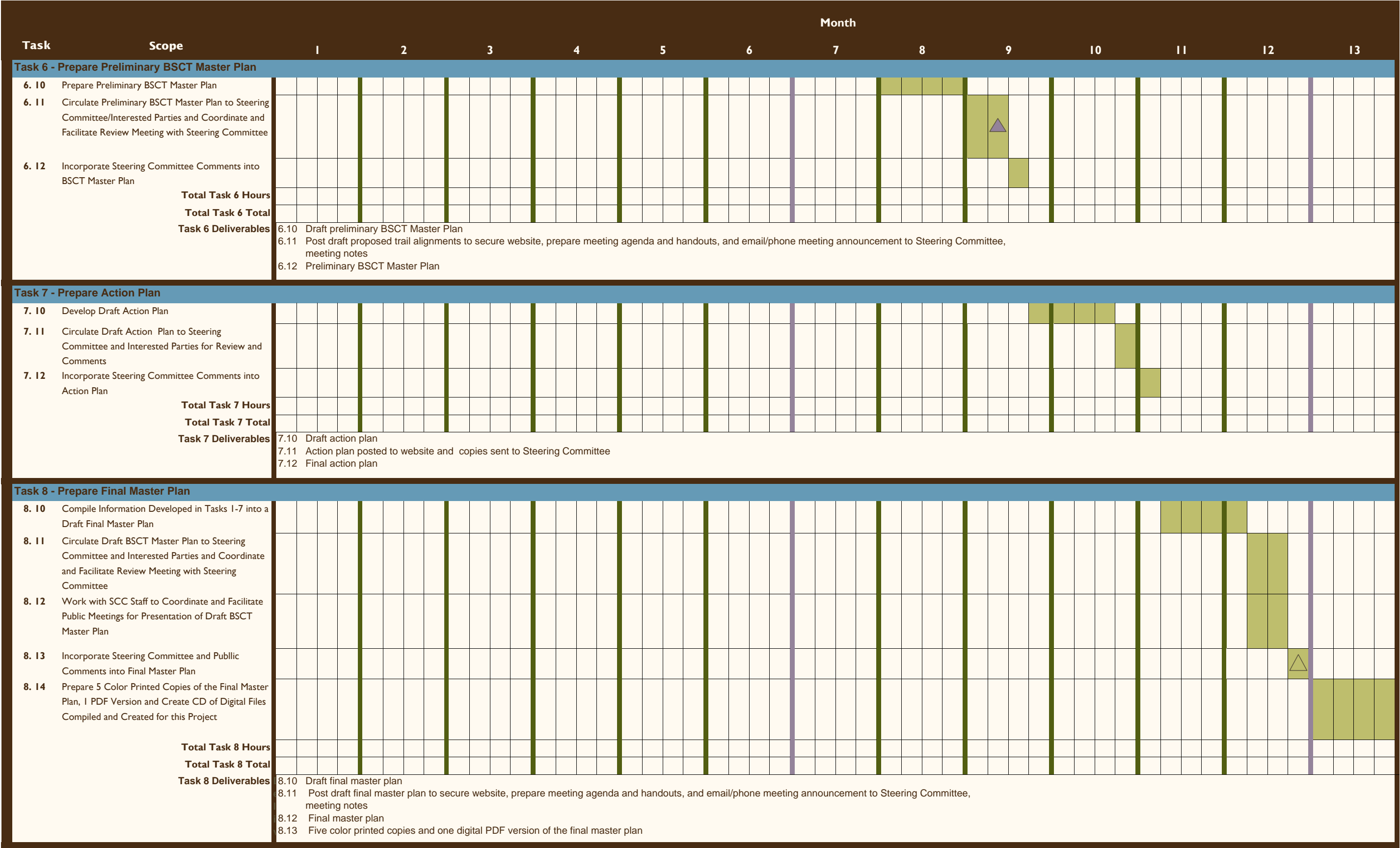
3.18 Final design criteria

3.19 Existing Conditions Report

Big Sur Coastal Trail Master Plan - Project Schedule



Big Sur Coastal Trail Master Plan - Project Schedule



		Month												
Task	Scope	1	2	3	4	5	6	7	8	9	10	11	12	13
Task 9 - Project Management														
9.10	Finalize Contract with Subconsultant													
9.11	Establishment and Maintenance of Secure Project Web Page for Communication among the Project Team and to Elicit Public Comment													
9.12	Conference Calls with SCC Staff and Steering Committee Members as Needed for Project Coordination													
9.13	Preparation of Monthly Progress Reports													
Total Task 9 Hours														
Total Task 9 Total														
Task 9 Deliverables		9.10 Subconsultant contract(s) 9.11 Secure website for posting of project information/materials, meeting announcements, public information and receiving public input 9.12 Conference call arrangements, posting or relevant documents to website and conference call announcements 9.13 Monthly progress reports												
Suggested Additional Task														
5.12A	Prepare Draft Maintenance and Operations Overview													
Task 9 Deliverables		5.12A Draft maintenance and operations overview												



Team Qualifications



Team References

The Dangermond Group

Ontario New Model Colony Open Space Planning

Reference: Richard Ayala
Planner
303 East 'B' Street
(909) 395-2421
rayala@ci.ontario.ca.us

Santa Ana River Trail Conceptual Master Plan

2002-2004
Reference: Ned Ibrahim
Assistant Director of Public Works
City of Corona
400 S.Vicentia Ave. 2nd floor
Corona, CA 92882
Tel: (951) 736-2290
Ned.Ibrahim@ci.corona.ca.us

Laguna Hills Open Space and Trails Plan

2000-2002
Reference: Kim Monach
Community Outreach Coordinator
City of Laguna Hills
24035 El Toro Road
Laguna Hills, CA 92653
kmonach@ci.laguna-hills.ca.us
(914) 707-2683

Keystone Associates

Sustainable Visitation Plan - Santuario de Fauna y Flora Otún Quimbaya

2004-2005
Reference: Dr. Carolina Murcia (Dr. Murcia is fluent in English and Spanish)
Northern Andes Program Director
Wildlife Conservation Society/Fundación EcoAndina
Avenida 2 Oeste No. 10-54
Cali, Colombia
Tel: 011-572- 892-6050
Email: cmurcia@wcs.org

Management Plan Revision - Channel Islands National Marine Sanctuary

1998-2000
Reference: Anne Walton
Management Plan Specialist
NOAA
Fort Mason, Building 201. San Francisco, CA 94123
(415) 561-6622 or (808) 246-2177
Email: anne.walton@noaa.gov

Management Plan – Sandy Bay - West End Marine Reserve

1998-2000
Reference: Jim Barborak
Director, Protected Areas and Conservation Corridors
Conservation International
P.O Box: 23652050, San Pedro, Costa Rica
Tel: 011-506-234-5349
email: jbarborak@conservation.org

Roger Bell

Reference: Dave Miller
Crafton Hills Open Space Conservancy
909-797-2040

Reference: Jonathon Marshall
City of Chino Hills
909-364-2600

Reference: Sherli Leonard
Executive Director
Redlands Conservancy
909-389-7810



Team References (cont.)

Dale Flowers

Training and Facilitation

1980 to present

Reference: Robert Minnis, Director
International Health Programs
Public Health Institute
210 High Street
Santa Cruz, CA 95060
831-427-4965

Facilitation

2006 to present

Reference: Keith E. Swanson, Chief
Flood Project Maintenance Branch
Department of Water Resources
Division of Flood Management
Sacramento, CA 95821
916-574-1302

Project Descriptions

Santa Ana River Trail Master Planning

Client: City of Corona

The Dangermond Group coordinated trail planning from Gypsum Canyon Road to La Sierra Wildlife Center. The firm supported planning efforts among the U.S. Army Corps, U.S. Fish and Wildlife, Caltrans, California Department of Parks and Recreation, Orange, Riverside and San Bernardino Counties, and several local agencies and Cities. In particular, consensus for alignments for the Prado Basin area and a loop-trail concept for the 7-Oaks Dam area was developed.

Laguna Hills Trails and Open Space Plan

Client: City of Laguna Hills

This project included an evaluation of the existing trails system and the condition of existing open space, including identifying and cataloguing

existing species. The Dangermond Group conducted a workshop and tour for the City's elected officials and made regular presentations before open meetings of the trails commission. The final plan provided recommendations for a comprehensive, connected system of Class I, Class II and hiking trails that would meet the needs of the City.

The presence of the creek and the park presented opportunities for habitat enhancement and preservation. Working with a qualified biologist, existing habitat types were identified and catalogued and recommendations for enhancement were made.

Ontario New Model Colony Open Space Planning

Client: City of Ontario

This open space planning project grew out of a settlement agreement between the City of Ontario and the Sierra Club and the Endangered Habitats League. The City of Ontario is soliciting the services of a land trust to provide for the acquisition, management and administration of lands to be purchased with approximately \$22 million of habitat mitigation fees collected from development in the New Model Colony over its 15-20 year build-out. The non-profit land trust chosen to perform these services will have experience in land acquisition, habitat administration and public/private partnership building.

The mitigation emphasizes preservation of wildlife values similar to those directly impacted by development of the NMC, with particular emphasis on burrowing owl and other raptors, waterfowl, and riparian species. The mitigation can be accomplished with the fee acquisition of land already suitable for these species or easement on sites already protected from development, where restoration and/or enhancement will provide the required habitat.



Project Descriptions (cont.)

The project approach included a technical evaluation of suitability of the selected species which included burrowing owls, water fowl and other raptors. The technical suitability was matched with information about suitable public partners with land in the project area. The Dangermond Group Team met with representatives of several public agencies to discuss the potential for creating habitat on their property in Prado Basin. An action plan with suggested budget has been developed for next year.

Legacy Workshops

Client: California Resources Department

The Legacy Project was a vision of the prior Secretary of Resources Mary Nichols. It was intended to organize the data produced by many people and communities that have been hard at work throughout the state developing plans and creating criteria for determining high priority resources to conserve.

The Dangermond Group coordinated, prepared and distributed materials, and hosted a series of eight workshops for the California Department of Resources. A selective, broad and diverse group of interests were invited to participate in these workshops. The two primary goals of the workshop were to gather insights regarding regional conservation criteria, and identify investment strategies that offer resource conservation and benefit local economic needs. The Dangermond Group worked hand in hand with Dale Flower, the meeting facilitator, to develop a smooth process that resulted in productive meetings.

Sustainable Visitation Plan - Santuario de Fauna y Flora Otún Quimbaya

The Santuario de Otún Quimbaya is a small national park in Colombia that protects

important habitat for the critically endangered Cauca Guan (*Penelope perspicax*) and more than 300 other species of birds.

Wildlife Conservation Society and Fundación contracted Cathryn Wild to work with staff of the Colombian national park service and various local stakeholders to resolve these conflicts and develop an integrated visitation plan for the park. She interviewed local residents who worked in the Santuario as well as park visitors and staff. Together they identified the primary problems facing each group, the anticipated effects of increased visitation, the threats to the park's habitats, and the related funding requirements. Then the efforts turned to collaboratively identifying solutions. The collaborative process was truly novel to the locals, who were surprised to find that the park staff and visitors cared that the outcomes were fair to everyone.

Management Plan Revision - Channel Islands National Marine Sanctuary

Updating of the Channel Islands National Marine Sanctuary management plan was a large-scale process that considered the expansion of Sanctuary boundaries and significant changes in permitted uses within the Sanctuary waters. Like many protected areas, the Sanctuary was mandated to balance resource protection with sustainable use. In this Sanctuary, the list of historical users was extensive and conflicts over use were many. In addition to commercial uses, the Channel Islands National Marine Sanctuary was heavily used by individuals and outfitters for whale-watching cruises, kayaking trips, sport-fishing, and scuba diving. Balancing the commercial and recreational uses presented a significant challenge in the planning and management process.

Ms. Wild was contracted to provide technical and public planning process coordination in the early stages of updating this 15-year old management plan and designating **Project**



Project Descriptions (cont.)

controversial marine reserves. She worked on the establishment of stakeholder working groups that provided input, helped facilitate public scoping meetings, compiled and organized public comments, developed meeting agendas, technical background materials and meeting minutes, authored outreach materials for the Sanctuary website, conducted outreach to partner organizations, and drafted alternatives for the eventual Environmental Impact Statement associated with the management plan update.

Management Plan – Sandy Bay - West End Marine Reserve

The Sandy Bay-West End Marine Reserve was established by fishermen and dive masters who realized that tourism and development impacts were threatening the long-term viability of their fragile coral reef system. The island's fringing reef was impacted by terrestrial run-off from road development and construction, slash-and-burn agriculture, inadequate waste systems, boat anchoring, over-harvest, and scuba diving. Dive-based tourism and infrastructure development were the major economic activities in the area of the Reserve. These activities were dependent on maintaining excellent environmental quality, but also threatened the resources on which they depended. Over time, conflicts arose in the community over resource use that the residents were unable to resolve without technical assistance.

Cathryn Wild was contracted by the Wildlife Conservation Society to develop a management plan for the Sandy Bay-West End Marine Reserve. Community-based planning was used to identify socioeconomic conflicts and assist in rebuilding the local residents' interest in managing their resources sustainably for the long term.

Working with the islanders, Ms. Wild conducted meetings, workshops, and one-on-one interviews to identify the critical socioeconomic conflicts and resource use impacts. Additional collaborative discussion helped to define marine reserve zoning and formulate conservation strategies to reduce the identified impacts. Conservation strategies were required to be culturally, financially, and technologically appropriate for a small island economy with limited resources. The final conservation strategies included:

- A community-based monitoring program;
- A reserve user fee that funded Reserve management and community improvement programs;
- Revegetation programs to reduce erosion and runoff;
- Establishment of a cooperative program with local dive shops to install anchoring buoys and limit diving impacts;
- Establishment of a cooperative program with restaurants to limit demand for overharvested local reef species.